The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte PETRI NYKANEN

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Appeal No. 2001-0161
Application No. 08/784,087

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ON BRIEF

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Before FLEMING, LEVY, and BLANKENSHIP, ***Administrative Patent Judges.***

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 13 through 50. Claims 1 through 12 have been canceled.

The invention relates to a method and machine for establishing communication between an infra-red transmitting device and a host using transmission protocols. See pages 1-3 of the specification. In particular, the invention involves a method and means to adapt the MAC rules of the IrLAP

specification to accommodate various IR transceiver devices with or without media sense. See page 3 of the specification.

Independent claims 13 and 22 are reproduced as follows:

13. A method of defining an IrDA protocol stack having a series of layers, for providing transaction support for IrDA-compatible systems including at least a transceiver device and a host adapted for IR transmissions therebetween, comprising the steps of:

providing a Connectivity layer defining the operating conditions for a physical IR link between said transceiver device and said host;

providing an Ir Link Access Protocol (IrLAP) layer, cooperating with said Connectivity layer, defining the specification for establishing a physical IR link between said transceiver device and said host, and comprising:

Media Access Control (MAC) rules for the IrLAP specification defining the requirements before the initiation of an IR transmission between said transceiver device and said host;

Framing rules for defining the form of transmitted (Tx) and received (Rx) IR transmissions between said transceiver device and said host; and

connection-less data defining rules for the IrLAP layer; and

providing a Link Management Protocol (LMP) layer, cooperating with said IrLAP layer, defining the specification for establishing service-to-service connection binding, and division of a reliable IrLAP connection to multiple channels, using frame-by-frame multiplexing, and comprising:

connection-less data defining rules for the LMP layer; and

connection-less Link Service Access Point (LSAP) defining rules for establishing a service-to-service connection by binding an LSAP of said transceiver device with an LSAP of said host for transmitting and accepting data in IR transmissions exchanged therebetween.

22. In an IrDA-compatible system including a transceiver device and a host, means for providing transaction support for IR transmissions between said transceiver device and host by producing an IrDA protocol stack having a series of layers, said means comprising:

means for producing a Connectivity layer for defining the operating conditions for a physical IR link between a transceiver device and a host;

means for producing an Ir Link Access Protocol (IrLAP) layer, cooperating with said Connectivity layer, for defining the specification for establishing a physical IR link between a transceiver device and a host, and comprising:

Media Access Control (MAC) rules for the IrLAP specification defining the requirements before the initiation of an IR transmission between a transceiver device and a host;

Framing rules for defining the form of transmitted (Tx) and received (Rx) IR transmissions between a transceiver device and a host; and

connection-less data defining rules for the IrLAP layer; and

means for producing a Link Management Protocol (LMP) layer, cooperating with said IrLAP layer, for defining the specification for establishing service-to-service connection binding, and division of a reliable IrLAP connection to multiple channels, using frame-by-frame multiplexing, and comprising:

connection-less data defining rules for the LMP layer; and

connection-less Link Service Access Point (LSAP) defining rules for establishing a service-to-service connection by binding a transceiver device LSAP with a host LSAP for transmitting and accepting data in IR transmissions exchanged therebetween.

The Examiner does not rely on any references.

Claims 13 through 50 stand rejected under 35 U.S.C. § 101 as being non-statutory subject matter.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the briefs[1] and answers for the respective details thereof.

[1] Appellant filed an Appeal Brief on January 18, 2000. Appellant filed a Reply Brief on August 11, 2000. The Examiner mailed an office communication on August 30, 2000 stating that the Reply Brief has been entered and considered.

OPINION

After careful consideration of the record before us, we will not sustain the 35 U.S.C. § 101 rejection of claim 13 through 50.

The Examiner argues that Appellant's claims do not produce a useful, concrete and tangible result. The Examiner argues that the Appellant's claims are "merely protocols or protocol stacks which can be considered as subroutines or programs." See page 4 of the Examiner's answer.

The Federal Circuit in ***State Street Bank v. Signature Financial***, 47 USPQ2d 1596 (Fed. Cir. 1998) first identified the three categories that are not patentable--laws of nature, natural phenomena and abstract ideas. The opinion went on to note that "subject matter is unpatentable only to the extent that it represents an abstract idea" and is thus not "useful." ***Id.*** at 1600-01 & n.4. Later in its opinion, the court returned to this issue: "[T]he mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it

nonstatutory subject matter, unless, of course, its operation does not produce a 'useful, concrete and tangible result.'" ***Id.*** at 1602. In this case, the court stated that "the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm . . . because it produces 'a useful, concrete and tangible result' . . . ." ***Id.*** at 1601.

Significantly, the court concluded its analysis as follows: "The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to . . . but rather on the essential characteristics of the subject matter, in particular, its practical utility." ***Id.***

Appellant's claim 13 recites:

> a method of defining an IrDA protocol stack having a series of layers . . . including at least a transceiver device and a host adapted for IR transmissions therebetween comprising the steps of . . . providing . . . connection-less Link Service Access point (LSAP) defining rules for establishing a service-to service connection by binding an LSAP of said transceiver device with an LSAP of said host for transmitting and accepting data in IR transmission exchanged therebetween.

We note that claim 37 recites a method similar to claim 13 for establishing a workable connection between the transceiver and a host. Furthermore, we note that claim 44 is directed to a system and claim 22 is directed to a machine for establishing a workable connection between a transceiver and a host.

Appellant argues on page 2 of the Reply Brief that the cited claim language requires establishing a workable connection between the transceiver and host whereby data in IR transmissions between them will be accepted. Appellant argues that obtaining acceptance of the IR transmission is a useful, concrete and tangible result.

We find that Appellant's claims recite subject matter that is a practical application of linking a transceiver device LSAP with a host LSAP for transmitting and accepting data in IR transmission exchanged therebetween. Therefore, we find that Appellant's claims 13 through 30 and 37 through 50 recite statutory subject matter.

Now, we will turn to claims 31 through 36 which recite an "IrDA protocol stack, for providing transaction support for IrDA-compatible systems including a transceiver device and a host adapted for Ir transmission therebetween, said protocol stack being incorporated in at least one of said transceiver and host . . . ." The Examiner appears to be arguing that the Appellant's claimed invention is non-functional descriptive matter which is non-statutory under § 101. See page 5 of the Examiner's answer.

Appellant argues that the claim is directed to a manufacture incorporated in a transceiver and/or host. See pages 21 and 22 of the brief.

In ***In re Lowry***, 32 F.3d 1579, 1583, 32 USPQ2d 1031, 1034-35 (Fed. Cir. 1994), our reviewing court held that a claim setting forth a computer readable medium encoded with a data structure defining structural and functional interrelationship between the data structure and the media which permits the data structures functionality to be realized is statutory. Furthermore, we note that in ***In re Lowry***, the court noted that Lowry does not seek to patent the data model in the abstract, but seeks to patent a data

structure that imposes a physical organization of data that supports specific data manipulation functions. See, ***In re Lowry***, at 1034.

We note that Appellant's claim 31 is directed to a data structure, an IrDA protocol stack, incorporated in at least one of said transceiver and host that provides the function of establishing a physical IR link between a transceiver device and a host. Therefore, we find that Appellant's claims 31 through 36 recites an article of manufacture and thereby meets the requirements of 35 U.S.C. § 101.

We have not sustained the rejections of claims 13 through 50 under 35 U.S.C. § 101. Accordingly, we reverse the Examiner's decision.

REVERSED

MICHAEL R. FLEMING Administrative Patent Judge	)	
STUART S. LEVY Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)	

MRF/lbg

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